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(54) Title: METHODS FOR GENERATING DOUBLED HAPLOID PLANTS

(57) Abstract: The present invention provides methods for generating doubled haploid and/or haploid plants from microspores. The methods of the invention include the steps of (a) purifying microspores at a developmental stage amenable to androgenic induction; (b) subjecting said microspores to nutrient stress to obtain stressed microspores; (c) contacting said microspores with an amount of a sporophytic development inducer effective to induce sporophytic development, said contacting step occurring before, during, after, or overlapping with any portion of said nutrient stress step; and (d) culturing said isolated microspores with at least one live plant ovary or with an aliquot of plant ovary conditioned medium. The methods of the present invention can also include the step of genetically transforming the microspores to produce genetically transformed plants.